

IN THE CLAIMS:

Please amend claim 48 as set forth in the complete listing of the claims and their status that follows:

Claims 1-35. (Cancelled)

36. (Previously presented) A method for dynamic stabilization of motion segments of the spine comprising the steps of:

positioning a stabilization element adjacent the spine, the stabilization element configured to span a length of the spine between two vertebrae;
engaging bone anchors to at least two vertebrae; and
coupling the bone anchors to the stabilization element, with at least one of the bone anchors coupled to permit deflection of the bone anchor between the stabilization element and the corresponding vertebra to which the at least one of the bone anchors is engaged.

37. (Previously presented) The method for dynamic stabilization according to claim 36, further comprising the step of repairing or replacing all or part of the intervertebral disc between at least two vertebrae.

38. (Original) The method for dynamic stabilization according to claim 37, wherein the step of repairing or replacing includes replacing all or part of the nucleus pulposus with a polymeric prosthesis having physical properties substantially similar to the physical properties of a natural nucleus pulposus.

38(B). (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Original) A method for dynamic stabilization of a motion segment of the spine comprising the steps of:

introducing a device into an intervertebral space to at least partially maintain or restore the natural motion of the disc at the motion segment; and

coupling a dynamic stabilization system across the motion segment, the system including at least one bone anchor that permits natural motion of the disc by deforming a portion of the bone anchor.

42. (Original) The method for dynamic stabilization according to claim 41, wherein the device includes a device for replacing or augmenting the nucleus pulposus of the intervertebral disc.

43. (Original) The method for dynamic stabilization according to claim 42, wherein the step of introducing a device includes introducing a polymeric prosthesis to replace or augment the nucleus pulposus in which the polymeric prosthesis exhibits physical properties similar to the natural nucleus pulposus

44. (Previously presented) The method for dynamic stabilization according to claim 43, wherein the polymeric prosthesis is formed from a hydrogel.

45. (Previously presented) The method for dynamic stabilization according to claim 42, wherein the device for replacing or augmenting the nucleus pulposus is a mechanical device.

46. (Previously presented) The method for dynamic stabilization according to claim 41, wherein the bone anchor includes:

an engagement portion configured for engagement within a vertebra of the motion segment;

a head portion configured for engagement to a stabilization element outside the vertebral body; and

a flexible portion between said engagement portion and said head portion.

47. (Previously presented) The method for dynamic stabilization according to claim 41, wherein the dynamic stabilization system includes:

a stabilization element configured to span a length of the spine between at least two vertebrae; and

at least two anchors, each of said anchors including a head portion configured for contacting said stabilization element and an engagement portion configured for engaging a vertebra, and at least one of said anchors including a flexible portion between said head portion and said engagement portion configured to permit relative movement between said head portion and said engagement portion.

48. (Currently Amended) A method for dynamic stabilization of a motion segment of the spine comprising the steps of:

introducing a device into an intervertebral space to at least partially maintain or restore the natural motion of the disc at the motion segment; and

coupling a dynamic stabilization system across the motion segment that permits natural motion of the disc and rotation of the motion segment in the anterior/posterior (A/P) plane substantially fully in both directions.

49. (Previously presented) The method for dynamic stabilization according to claim 48, wherein the device includes a device for replacing or augmenting the nucleus pulposus of the intervertebral disc.

50. (Previously presented) The method for dynamic stabilization according to claim 49, wherein the step of introducing a device includes introducing a polymeric prosthesis to replace or augment the nucleus pulposus in which the polymeric prosthesis exhibits physical properties similar to the natural nucleus pulposus.

51. (Previously presented) The method for dynamic stabilization according to claim 50, wherein the polymeric prosthesis is formed of a hydrogel.